

1 17. A method of deferring the rebalancing of a tree data
2 structure comprising the steps of:
3 (a) tracking the performance of operations upon the tree
4 data structure; and
5 (b) rebalancing the tree data structure when an unbalanced
6 sub-tree of the tree data structure reaches a threshold level
7 greater than one, the rebalancing further comprising creating a
8 first set of rebalancing operation tasks, the first set of
9 rebalancing operation tasks being characterized by navigation of
10 the tree data structure using at least an existing link,
11 creating a second set of rebalancing operation tasks, the second
12 set of rebalancing operation tasks being different from the
13 first set of rebalancing operation tasks and being characterized
14 by location of elements within the tree data structure using at
15 least one pointer created by the first set of rebalancing
16 operation tasks, and performing at least one operation task of
17 the first set of rebalancing operation tasks in a first phase
18 and at least one of the second set of rebalancing operation
19 tasks in a second phase.

1 18. A method of deferring the rebalancing of a tree data
2 structure comprising the steps of:
3 (a) tracking the performance of operations upon the tree
4 data structure; and
5 (b) rebalancing the tree data structure when an unbalanced
6 sub-tree of the tree data structure reaches a threshold level
7 greater than one, the rebalancing further comprising executing
8 simultaneous rebalancing operations on the tree data structure
9 including performing any first phase operation task of each of
10 the simultaneous rebalancing operations in a first phase using
11 parallel processes, developing a set of serial rebalancing
12 operations during the first phase, and performing any second
13 phase operation task of each of the simultaneous rebalancing
14 operations in a second phase, the second phase operation task
15 having at least one of the set of serial rebalancing operations.